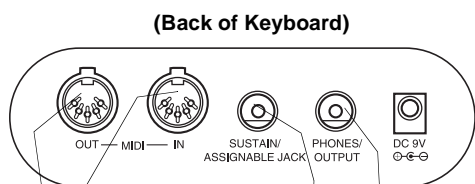


Song Memory — lets you set the keyboard to record up to two songs, six tracks, and 3,500 notes. The recording remains stored even while the keyboard is off (see “Using the Song Memory” on Page 16).



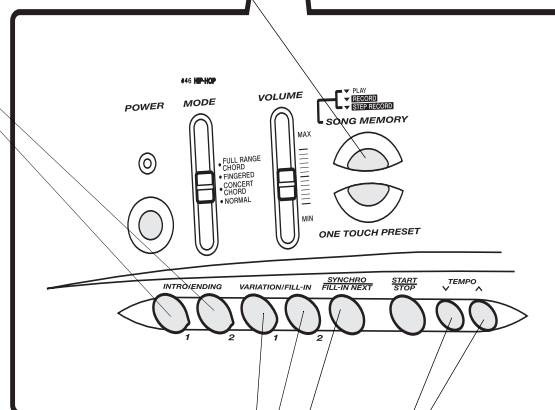
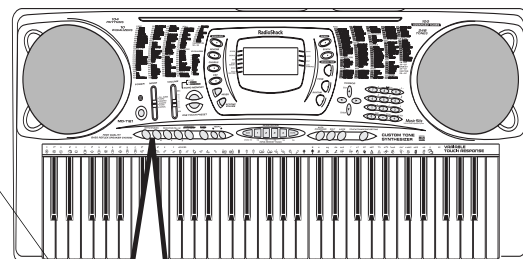
MIDI In/Out Jacks — let you connect the keyboard to another MIDI-equipped device. To connect a MIDI device to your keyboard, see “Making the MIDI Connections” on Page 20.

Headphones/Output Jack — lets you connect headphones so you can play without disturbing others, or an external amplifier so you can play for a crowd (neither supplied).

Sustain/Assignable Jack — lets you connect a sustain pedal (not supplied, available at your local RadioShack store or at RadioShack.com) to the keyboard so you can sustain or soften your keyboard’s sound, or start/stop an auto-rhythm (see “Using a Sustain Pedal” on Page 15).

Automatic Intro/Ending Rhythm

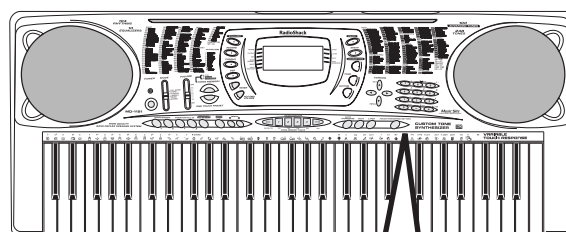
— you can set the keyboard so it automatically adds a 3- to 8-measure introduction or 3- to 8-measure ending to the selected auto-rhythm (see “Using INTRO” on Page 9).



Fill-In Rhythm — lets you insert a short variation into any auto-rhythm (see “Using FILL-IN” on Page 9).

Tempo Control — lets you speed up or slow down the tempo of any selected music pattern.

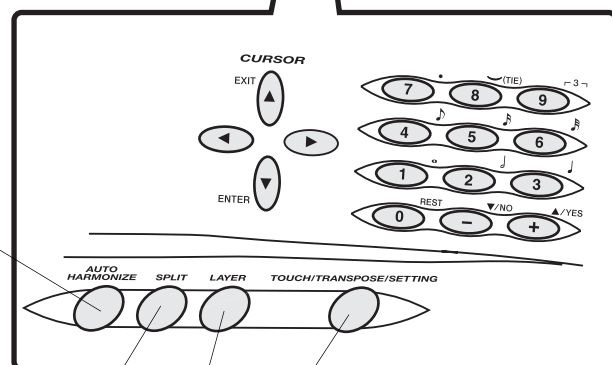
Tune Control — lets you adjust the pitch of your keyboard so you can play in tune with other instruments (see “Tuning the Keyboard” on Page 14).



Effects — lets you add reverb, chorus, and more powerful sound effects – even tailor a parameter to create your own effect (see “Using the Preset Tones” on Page 5).

Auto Harmonize — lets you automatically add harmony to your melodies (see “Using Auto Harmonize” on Page 12).

Split Function — lets you use different sounds for the low- and high-end keys (see “Using SPLIT” on Page 8).



Layer Function — lets you set the keyboard to play two different tones at the same time, giving your music a “layered” effect (see “Using LAYER” on Page 8).

Transpose Function — lets you instantly change the key of the music, even while you are playing (see “Changing Keys” on Page 14).

BASIC OPERATION

1. Slide **VOLUME** to **MIN** (minimum). !
2. To turn on the keyboard, press **POWER**. The **POWER** indicator lights and the display turns on. ✓
3. Slide **MODE** to **NORMAL**.
4. Slide **VOLUME** toward **MAX** slightly and begin playing the keyboard.
 - To select an auto-rhythm, see "Using the Preset Auto-Rhythms" on Page 9.
 - To play auto accompaniment, see "Using Auto Accompaniment" on Page 10.
5. Slide **VOLUME** toward **MAX** to increase the sound level or toward **MIN** to decrease it.
6. To turn off the keyboard, press **POWER**. The **POWER** indicator and the keyboard's display turn off.

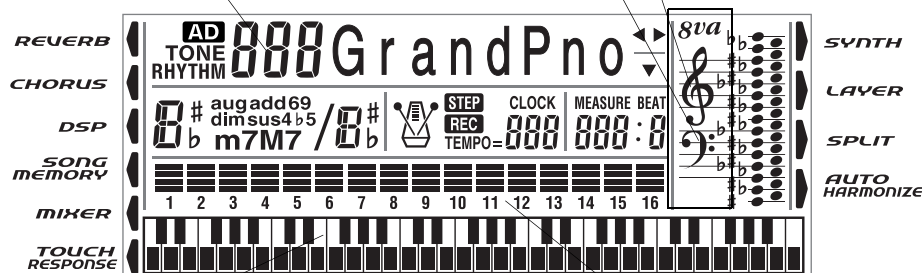
To save power, the keyboard automatically turns off after about 6 minutes if you do not press a key. To turn on the keyboard again, press **POWER**. To cancel auto power off, turn on the keyboard while holding down **TONE**. The next time you turn the keyboard off then back on again, it will automatically turn off after about 6 minutes.

PLAYING THE DEMONSTRATION TUNES

Your keyboard can play two preprogrammed demonstration tunes. To start the demonstration, press **DEMO**. The keyboard plays the first demonstration tune (No. 0). To select the other tune, press **-** or **+** on the keypad. The selected tune's number appears and the tune plays.

The demo tune number appears here.

The treble and bass clefs show the notes as they play.



The keyboard at the bottom of the display shows the location of the keys being pressed.

The bar graph shows the sound level on each of the 16 channels. See "Using the Mixer" on Page 12.

USING THE PRESET TONES

Your keyboard can sound like 248 different musical instruments or sound effects. The **TONES** list on the keyboard's top panel shows the name and three-digit number for the first 100 preset tones. For tones 100-227, see "GM Tones" on Page 27. ✓

Follow these steps to select and play a preset tone.

1. Press **TONE**. **TONE** and the current tone's number appear. ✓
2. To play a different tone, choose a preset tone from the **TONES** list and enter its three-digit number on the keypad. Precede a single- or two-digit number with zeroes. As you press the keys, the selected digits appear. ✓
3. Play the keyboard to hear the selected tone and adjust **VOLUME** to the desired level.

! IMPORTANT !

To prevent hearing damage, always set the keyboard's volume to **MIN** before you turn it on.

NOTE

Basic Operation

The keyboard automatically selects the tone **GRAND PIANO** (No. 000) when you turn the power on. Each time you turn it on after that, it selects the last selected tone. To select a different tone, see "Using the Preset Tones".

Using the Preset Tones

- The keyboard has 32-note (maximum) polyphonic sound. This means that you can play up to 32 different notes at the same time with most of the keyboard's preset tones. Some tones are only capable of 16-note polyphony.
- Most tones on this keyboard have been recorded and processed using a technique called *digital sampling*. To ensure a high level of tonal quality, samples are taken in the low, mid, and high ranges and are then combined to sound amazingly close to the originals. You might notice very slight differences in volume or sound quality for some tones when you play them at different positions on the keyboard. This is an unavoidable result of multiple sampling and is not a malfunction.
- Repeatedly press **+** or **-** to select the next highest or lowest numbered tone.
- If you enter an incorrect first digit, press **TONE** to clear your entry, then enter the correct digit.
- When you select one of the drum sets (tone numbers 228-237), each key plays a different percussion sound. See "Drum Assignment List" on Page 30. The drum set sounds change when you change the rhythm number, play back data stored in memory, or receive MIDI program change data.
- Tone numbers 238-247 are the user tone area. See "Using the Tone Synthesizer" on Page 13.

4. To select a different tone, repeat Step 2 while **TONE** appears.

USING AN ADVANCED TONE

The first 100 tones (numbers 00 to 99) have corresponding advanced tones. The advanced tones use variations of standard tones created by programming in effects (DSP) and other settings. For example, PIANO is modified into STEREO PIANO, ORGAN becomes ROTARY SPEAKER ORGAN, and so on. See “Advanced Tones” on Page 25.

If a tone number outside the range of 000 to 099 is selected when you press **ADVANCED**

TONE, the tone automatically changes to the advanced tone version of tone number 00.

Only one of the channels (1 to 16) can have an advanced tone. If you assign an advanced tone to another channel, the tone in the currently assigned channel becomes the standard tone.

Press **ADVANCED TONE** to select the advanced tone. **AD** appears, and the currently selected tone changes to its advanced version. Repeatedly press **+** or **–** to scroll through the advanced tones, or use the number buttons to enter the two-digit tone number.

Press **TONE** to return to the standard tone. **AD** disappears.

USING REVERB AND CHORUS

The reverb feature creates ambience by causing the sound to linger and reverberate. You can choose from 16 different reverb effects. See “Reverb” on Page 32 for details.

The chorus feature gives sound greater depth by causing it to vibrate. You can choose from 16 different chorus effects. See “Chorus” on Page 32 for details.

SELECTING REVERB/CHORUS

1. Press **REVERB** or **CHORUS**. The indicator next to REVERB or CHORUS lights.
2. Repeatedly press **+** or **–** or use the number buttons to enter a number to display the effect you want. See “Reverb” or “Chorus” on Page 32 for the type of the effects and the corresponding numbers.

CHANGING THE REVERB OR CHORUS PARAMETERS

You can control the parameters of an effect to change how it sounds. The parameters you can control vary depending on the effect type.

1. After selecting the effect you want, press **▼ (ENTER)**. The parameter setting screen appears.
2. Repeatedly press **◀** or **▶ (CURSOR)** to display the parameter you want to change.

Reverb Parameters

Reverb effects are classified as reverb or delay type. Parameter settings vary depending on the type.

Reverb Type Parameters (No. 0 to 5, 8 to 13)

Rvb (Reverb) Level (000 to 127) — Controls the reverb size. A larger number produces larger reverb.

Rvb Time (000 to 127) — Controls how long reverb continues. A larger number produces longer reverb.

ER Level (Initial Echo Sound) (000 to 127) — Controls the initial reverb volume. The initial echo sound is the first sound reflected from the walls and ceiling. A larger value specifies a larger echo sound.

HighDamp (000 to 127) — Adjusts the damping of high frequency reverberation. A smaller value damps high sounds, creating a dark reverb. A larger value does not damp high sounds, creating a brighter reverb.

Delay Type Parameters (No. 6, 7, 14, 15)

Delay Level (000 to 127) — Specifies the size of the delay sound. A higher value produces a larger delay sound.

Delay FB (Feedback) (000 to 127) — Adjusts delay repeat. A higher value produces a greater number of repeats.

ER Level (Initial Echo Sound) (000 to 127) — Controls the initial reverb volume. The initial echo sound is the first sound reflected from the walls and ceiling. A larger value specifies a larger echo sound.

HighDamp (000 to 127) — Adjusts the damping of high frequency reverberation. A smaller value damps high sounds, creating a dark reverb. A larger value does not damp high sounds, creating a brighter reverb.

Chorus Parameters

Cho (Chorus) Level (000 to 127) — Sets the size of the chorus sound.

Cho Rate (000 to 127) — Sets the undulation speed of the chorus sound. A higher value produces faster undulation.